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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,505	01/19/2001	Paramvir Bahl	MS1-511US	1105

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EXAMINER

D AGOSTA, STEPHEN M

ART UNIT PAPER NUMBER

2683

DATE MAILED: 05/12/2004

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/766,505

Applicant(s)

BAHL ET AL.

Examiner

Stephen M. D'Agosta

Art Unit

2683

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-22, 24-35 and 37-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5, 7-22, 30-35 and 37-39 is/are allowed.
- 6) ☒ Claim(s) 24-25, 27-29, 40 and 42-46 is/are rejected.
- 7) ☒ Claim(s) 26 and 41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

The applicant's amendment and Terminal Disclaimer have been received. Upon further review, the examiner believes that certain claims are "covered" by the Terminal Disclaimer while certain other claims are too broad to be covered.

Specifically, the examiner allows the following independent claims: Claims 1, 10, 17 and 30 since they recite use of a "hierarchical directory structure" and/or "directory tree structure" along with other limitations.

Independent claim 24 does NOT recite use of these directory structures and claim 40 is written too broadly to allow.

The applicant can either cancel independent claims 24 and 40 (along with their dependent claims) and/or amend them per the objected to claims as shown below.

ALLOWED CLAIMS: 1-5, 7-22, 30-35 and 37-39.

REJECTED CLAIMS: 24-25, 27-29, 40 and 42-46.

OBJECTED CLAIMS: 26 and 41.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 24-25 and 27-29 rejected under 35 U.S.C. 102(e) as being anticipated by

Sample et al. US 6,408,307.

As per **claim 24**, Semple teaches a location-aware computer program comprising:

A location subsystem to determine a location of a user within at least one geographical area (C2, L8-30 teaches geographic vicinity to a user which inherently require locating the user, Abstract teaches displaying items of interest near the user and C5, L22-30. Semple also teaches cellular communications, C6, L1-6 which can locate a user as is known in the art):

A resource database having records that each contain information about a resource, including a location of the resource, each record being ordered according to the location of the resource represented by the record (C2, L8-30 and L44-67 teaches a database with objects of interest near the user),

A query processor that receives a query from the user for a resource that is nearest to the user and returns a location of a resource that is nearest to the user (C2, L44-50 teaches providing a map to the user showing objects of interest near the user, see figures 2 and 12 as well).

As per **claim 25**, Semple teaches claim 24 wherein the location subsystem comprises a locator that determines the user's location (C2, L8-30 teaches geographic vicinity to a user which inherently require locating the user, Abstract teaches displaying items of interest near the user and C5, L22-30. Semple also teaches cellular communications, C6, L1-6 which can locate a user as is known in the art).

As per **claim 27**, Semple teaches claim 24 wherein the query processor receives the location of the user and determines which resource is nearest to the user by searching the resource database beginning with the geographical area in which the user is connected to the network and, if a resource is not found, searching at least one other geographical area for a resource matching the query (C6, L61-67 teaches only searching in a relatively "small" area which can be expanded, to 100 miles for example. Hence this reads on the claim since a user that might be walking has access to virtually any/all items of interest, but only wants those which are within reasonably walking distance – eg. if the search within a half-mile comes up empty, the user can search in a 1-mile zone).

As per **claim 28**, Semple teaches claim 24 wherein the location of the resource is a relative location stored with coordinates that are relative to a geographical area which is defined in absolute coordinates (Semple teaches both "local" searching and "extended" searching for local and far-away items of interest, abstract teaches searching O'Hare airport when in New York and/or just searching close-by when in New York. Both searches would use either street addresses/zip codes and/or LAT/LONG).

As per **claim 29**, Semple teaches claim 24 wherein;

The information about a resource further includes properties of the resource; and

The query processor receives the query for a resource that is nearest the user and that has one particular property and returns a location of the resource that is nearest the use with the property selected (C1, L60-64 and C2, L44-62 – user can input parameters about that which they are searching for).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 40 and 42-45 rejected under 35 U.S.C. 103(a) as being unpatentable over Semple and further in view of Banning US 6,380,957.

As per **claim 40**, Semple teaches a database (C2, L1-3)) comprising:

Multiple records associated with fixed resources in a vicinity (C1, L60 to C2, L8 teaches a database storing information about items of interest and would inherently include database "records" about said resources/items such as their name and location); and

But is silent on a wireless network's resources AND a directory tree structure to organize the records according to a location of the fixed resource that the record represents.

The examiner notes that Semple teaches a system that can locate any/all items of interest contained in the database, ie. services, products, geographical sites, architectural sites, stores, restaurants, public services and other items (C1, L60-63). Hence products and services read on wireless resources since a user may need to locate said wireless resources.

Banning discloses the general use of storing data/files in a directory tree organization and directory trees into a hierarchical configuration (C1, L47-59).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Semple, such that wireless network's resources are stored/located AND a directory tree structure to organize the records according to a location of the fixed resource that the record represents, to provide means for the user to find wireless services/support via an easy-to-user graphical tree structure.

As per **claim 42**, Semple teaches claim 40 wherein each record representing a fixed resource further comprises properties of the fixed resource represented by the record (C1, L60-64 and C2, L44-62 – user can input parameters about that which they are searching for).

As per **claim 43**, Semple teaches claim 40 and one or more computer-readable media containing the database (C1, L65-66 teaches a personal computer and C2, L2 teaches a client/server architecture which inherently requires client and server to have computer-readable media).

As per **claim 44**, Semple teaches claim 40 and a server in a wireless network that contains the database (figure 6a shows an RF system and figure 6b shows a cellular system whereby the server can be located in the wireless network and host said database).

As per **claim 45**, Semple teaches claim 40 and a wireless network having more than one server wherein each server contains a database (figure 6a shows an RF system and figure 6b shows a cellular system whereby the server can be located in the wireless network and host said database. The examiner notes that the system architecture can be either a central or distributed server design and allow for either one or multiple servers/databases).

Claim 46 rejected under 35 U.S.C. 103(a) as being unpatentable over Semple and Banning and further in view of Prasad et al. US 6,539,381.

As per **claim 46**, Semple teaches claim 45 **but is silent on** wherein the servers are configured to accept changes to the database and, when a change is made to the database in one server, the changed database is replicated in each of the other servers.

The examiner notes that distributed database servers require synchronization in order to ensure that all data is consistently stored across all databases.

Prasad teaches a system and method for synchronizing database information over a communications network distributed among a plurality of servers. The system allows each server to track the state of a replica on each of the servers, and changes to the servers are communicated between the servers along with their states (abstract).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Semple, such that the servers are configured to accept changes to the database and, when a change is made to the database in one server, the changed database is replicated in each of the other servers, to provide means for updating data changes throughout the database server network if/when the design uses multiple database servers (eg. for fault tolerance).

Allowable Subject Matter

Claims 26 and 41 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 703-306-5426. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stephen D'Agosta
5-4-04

